

United States of America
Before the Department of Energy
Tucson Electric Power Company
Docket No PP-229

**Application For
Presidential Permit**

Introduction

The Tucson Electric Power Company ("TEP" or "Company"), is a company organized under the laws of the State of Arizona, engaged in the business of providing electric utility service at both wholesale and retail. TEP is authorized to conduct business in the states of New Mexico, Arizona, and California.

Exact Legal Name

TEP's exact legal name is "Tucson Electric Power Company."

Exact Legal Name of all Partners

At the present time, TEP does not have any partners in the project for which this application is made. Partners may be invited to join the project in the future, at which time TEP will provide the Department of Energy ("DOE") with appropriate notice, including the exact legal name of all partners.

Name, Post Office Address and Telephone Number of the Person to Receive Correspondence

Mr. Ed Beck, Supervisor, Transmission Planning
Tucson Electric Power Company
P.O. Box 711
Tucson, AZ 85702
(520) 745-3276

Foreign Ownership of TEP or its Facilities

Neither TEP nor its transmission lines are owned wholly or in part by a foreign government or directly or indirectly assisted by a foreign government or instrumentality thereof. At the present time, TEP does not have any agreement pertaining to such ownership or assistance from any foreign government or instrumentality thereof. However, TEP has had discussions with the Comisión Federal de Electricidad ("CFE"), the national electric utility of Mexico, regarding their potential participation in or ownership of the transmission line project that is the subject of this Application. Should these discussions result in contracts for foreign ownership or assistance with respect to such project, TEP will provide the DOE with appropriate notice, including the exact legal name of all participants.

Existing Contracts with Foreign Governments or Foreign Private Concerns

At the present time, TEP has no contracts in effect with the CFE. TEP could potentially export electricity to Mexico, subject to obtaining the appropriate electricity export authorization from the U.S. Department of Energy.

Showing of Legal Capacity

As shown in the attached signed Opinion of Counsel (see Appendix A), the construction, connection, operation, and maintenance of the proposed facility is within the corporate power of TEP, and TEP has complied with and will comply with all pertinent Federal and State laws.

A Description of the Transmission Facilities through which the Electric Energy Will be Delivered to the Foreign Country, Including the Name of the Owners and the Location of Any Remote Facilities

TEP proposes to construct a double-circuit 345 kV, alternating current ("AC") transmission line to interconnect the existing electrical systems of TEP and Citizens Utilities ("Citizens") in Nogales, Arizona, with a further interconnection to be made from Nogales, Arizona to the CFE transmission system located in Sonora, Mexico. The interconnection with Citizens is designed to address a requirement on the part of Citizens, by virtue of an order of the Arizona Corporation Commission, to provide for an upgraded system in Citizen's southern Arizona service area in order to enhance reliability of service to Citizens' customers. The proposed in-service date for the connection between TEP and Citizens is December 2003. Plans for the CFE in-service arrangements are still being finalized, but it is anticipated that the CFE interconnection will occur within approximately the same time frame.

The double circuit line initially may be constructed in its entirety or, depending on economic and other business conditions at the time, may be constructed in phases. Both of the proposed transmission circuits would originate at South Substation High Voltage Switchyard located approximately 15 miles south of Tucson, Arizona (see enclosed map). The lines would interconnect through a new 345/115 kV substation to be constructed in the vicinity of the west side of Nogales, Arizona. The connection with Citizens' local system in Nogales would also be established at this point. In Mexico the facilities would connect with complimentary 230 kV transmission facilities of the CFE that connect to an existing substation named Santa Ana, located some 60 miles south of the international border.

TEP is the owner of the South Switchyard and would be the proposed owner of the new 345/115 kV substation to be built in or near Nogales, Arizona. The line will be built to synchronously interconnect with the CFE transmission facilities. The map in Appendix C presents easterly and westerly routes that commence at Tucson Electric Power's South Substation and, together with intervening sub-routes to the south that are included for further study and analysis, end at a new 345/115 kV substation in the Nogales, Arizona area. A tie to Citizens system in Nogales is anticipated and a study area with an alignment to the border will be assessed and coordinated with CFE.

Typical structure types for the line are shown in Appendix B. The line between the South Switchyard and TEP's new 345/115 kV substation would be operated at 345 kV (345,000 volts). Each of the double circuit AC line(s) would be expected to be rated for a transfer capability of approximately 400 MWs.

TEP anticipates that, through a public input process and evaluation of environmental concerns, several routing alternatives will be considered and ultimately a single corridor with a 150 to 200 foot right-of-way for the transmission line will be identified. This selection process will depend on parallel evaluation and approval processes in the United States and Mexico. The environmental processes in both countries will determine whether use of any one route would create unacceptable environmental impacts and whether any of the routes is clearly favored on the basis of lowest potential impacts. Parallel technical studies will further define potential operation and reliability impacts of the technical options on the electrical systems of the United States and Mexico. A final selection of technology and routing will require the information from all of these analyses.

Potential Environmental Impacts of the Proposed Route Alternatives

The potential environmental impacts in the study area are discussed in Appendix C. The information provided in Appendix C is intended only to indicate the general character of the environment in the project area and to provide a data base, within the Santa Cruz River Basin and areas immediately adjacent, upon which the applicant can test various routing options as they are formulated during the initial public meetings. Using the environmental database, a preliminary assessment of the potential of each route to affect the environment will be made. DOE, upon review of the preliminary assessment, will direct an environmental analysis and review necessary to comply with the National Environmental Policy Act (NEPA) 10 CFR §1021.

APPENDIX A

Opinion of Counsel

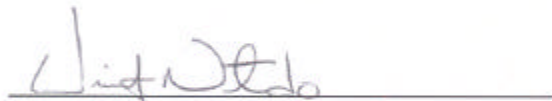
The undersigned, being Vice President and Assistant General Counsel for Tucson Electric Power Company ("the Company"), states and gives his opinion, pursuant to 10 CFR § 205.322(a)(6), as follows:

(a) that he has examined and is familiar with the corporate powers of the Company, pursuant to the Company's Articles of Incorporation and By-laws;

(b) that he has examined and is familiar with the contents of the Company's Application for Presidential Permit, to which this Opinion is attached as an Appendix;

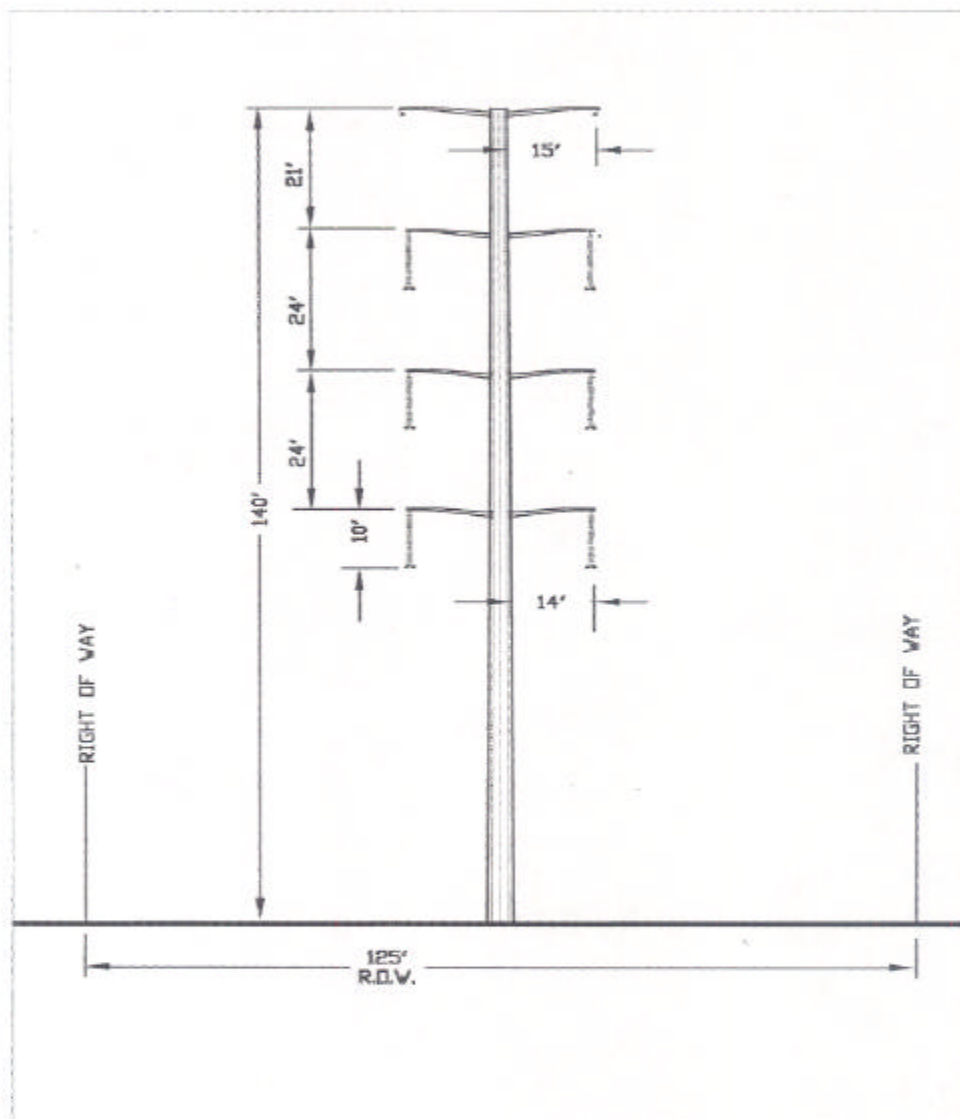
(c) that in his opinion the construction, connection, operation and maintenance of the facilities as proposed in said Application is within the corporate power of the Company; and,

(d) that, with respect thereto, the Company has complied and will comply with all pertinent federal and state laws.



Vincent Nitido, Jr.
Vice President and Assistant General Counsel
Tucson Electric Power Company
P.O. Box 711
Tucson, Arizona 85702

Date



<div style="text-align: right;"> 5' 10' 20' </div> <div style="border: 1px solid black; width: 100px; height: 100px; margin: 10px auto;"></div> <div style="text-align: center; margin-top: 10px;"> JULY 2000 </div>	<div style="border: 1px solid black; padding: 5px;"> TUCSON ELECTRIC POWER COMPANY </div> <div style="font-size: small; margin-top: 5px;"> GENERAL OFFICE: P.O. BOX 175, TUCSON, ARIZONA 85702 95 SO. SPRING STREET, TUCSON, ARIZONA 85701 TEL: 734-2451 </div>		<div style="border: 1px solid black; padding: 5px;"> APPENDIX <div style="font-size: 2em; text-align: center;">B</div> <div style="text-align: right; font-size: small;">SHEET 5 OF 1</div> </div>
<div style="border: 1px solid black; padding: 10px;"> <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> SANTA CRUZ RIVER VALLEY 345 kV CORRIDOR STUDY </div> <div style="width: 55%; text-align: center;"> <div style="font-size: 1.5em; font-weight: bold;">345kV-TWO CIRCUIT</div> <div style="font-size: 1.5em; font-weight: bold;">STRUCTURE</div> </div> </div> </div>			

APPENDIX C

Statement of Environmental Impacts of the Proposed Facility

Summary

In 1996 TEP conducted preliminary reconnaissance within the region to determine the feasibility of constructing a 345kV transmission line described in this Application. The gathering of the preliminary information was accomplished and the subsequent updating of the more dynamic components of the inventories has been TEP's focus since early 2000. The study area encompasses approximately 35 townships in southern Arizona and extends from south of the Tohono O'Odham Nation (T16S) to the International Boundary, north to south. The area east to west commences east of Arivaca (R11E) and continues through R15E west of Patagonia.

The inventories prepared include information on physical resources (soils, geology, hydrology and land form and slope); cultural resources (archaeological, historical, current land use); and biological (vegetation and wildlife, including potential ranges of Threatened and Endangered Species). This information is intended to satisfy the requirements of 10 CFR § 205.322 and to provide general background information on the character of the local environment, and establish a point of departure from which the DOE will apply the criteria set forth in 10 CFR § 1021 to determine the level of NEPA review required prior to granting a Presidential Permit for this project. The DOE will determine the appropriate studies to support the level of necessary NEPA review and supervise preparation of them.

General Character of Expected Impacts to the Environment

Introduction

The development of the transmission line corridor will create impacts to environmental resources. These impacts will occur at three different stages during the process. The first is during the planning and design phase which includes the environmental analysis, the second is during construction, and the third will occur during the operation and maintenance of the system.

Activities expected to have an impact to the environmental resources are:

Planning

Environmental resource inventories have been prepared using existing data, and aerial photography. As potential impacts are identified, field investigations and studies will need to be implemented. The technical feasibility and engineering considerations have been assessed in the same manner.

The first level of field assessment will be to ground truth specific areas by verifying the accuracy of the data derived using aerial photography and other data not physically collected by the environmental consultants, and to expand our knowledge of the issues within the study area. Areas with "right of entry" will be assessed using light vehicles limited to existing roads, with the balance traversed on foot by the investigators.

The second level of field activity will occur once specific corridors are selected. Survey operations are planned to be accomplished using global positioning satellite technology. The alignment of the construction access and the location of all structures will be staked so that the environmental consultants can assess the potential impact on any sensitive resources encountered. It is generally feasible to avoid impact to sensitive areas or resources by adjustments in alignment or structure location.

Potential Impact

Sources of expected environmental impacts should be limited to light vehicles traversing the corridors, crews walking to and around the structure locations, markers placed along the anticipated access, and stakes driven into ground at the structure locations.

Construction

Several methods of erecting the structures to support the power line are available. Where the structure locations are adjacent to or near an existing access roadway, the primary method employed to construct the system includes the following: 1) delivery of the materials and the construction equipment to the structure location, 2) clear and level limited areas along the access route or spurs to structures in selected areas, 3) excavation at the structure site and dispersal or removal of overburden, 4) set structures, 5) rigging structure for stringing and tensioning of conductors and communication, 6) pulling pilot cable and tensioning conductors, and 7) construction of a substation and modification of existing facilities.

Potential Impact

The expected impacts include the disturbance of soil along the access route, and the excavation and soil disturbance adjacent to the structure. Generally, it is feasible to avoid a majority of the potential impacts to archaeological, biological and other sensitive environments and thus reduce or eliminate the potential impacts.

The modifications to the northern point of connection should occur wholly within the existing Substation enclosure, and minimal impacts are expected. Those that occur should be limited to ground disturbance immediately adjacent to the existing facilities in areas previously disturbed during construction operations. At the southern terminus a new substation will be constructed. There will be substantial grading and ground disturbance. A site, to be considered, will be

evaluated with respect to potential environmental impacts. The expected impacts include the aforementioned grading and ground disturbance, along with potential hydrological, cultural and biological impacts. There will be three transmission line entrances to the site. The first is the incoming 345kV corridor, the second is the interconnect to the Citizens system and the third will be a future point of connection to CFE in Mexico. These systems will reflect the same expected impacts as noted for the primary corridor discussed above.

Operation and Maintenance

Once the system is energized and in an operational mode, the potential impacts are limited to periodic access to the new substation from the public roads or right-of-ways. These are expected to occur less than once a week and will typically consist of a single vehicle and crew.

Maintenance may be segregated into two activities: scheduled maintenance and emergency operations. The scheduled maintenance includes periodic inspection of the transmission line and the structural components. An existing TEP 345kV transmission line from Springerville, AZ to Vail and South Substation is inspected from a helicopter. Where a structure or conductor has damage noted, service personnel and equipment are scheduled and dispatched via four-wheel drive vehicles as necessary. Where damage to any component critical to the operation of the system is sustained, crews are dispatched and will use the access developed during construction.

Potential Impact

The mobilization of the helicopter inspection crew should have negligible impact on the environmental resources. The fielding of emergency outage or maintenance crews will create potential impacts similar to that encountered during the construction operations phase. Generally, the damage would be limited to specific random segments of the transmission line within areas at or adjacent to the access road and structures. The impact to the environmental resources during this phase would be less than that expected during construction operations.

Mitigation of Potential Impacts to the Environment and Cultural Resources

Some of the potential mitigation measures which may be used during specific phases or for specific environmental applications have been presented above. The selection of mitigation measures is dependent on the specific environmental resources surveyed during the NEPA process including the compliance processes required by the Historic Preservation Act, Antiquities Act of 1976, Endangered Species Act, and the Clean Water Act (NPDES) et al. Additionally, the final selection of mitigation measures shall be accomplished in consultation with the federal, state, local and other agencies responsible for granting permits or managing the lands traversed by this project.

Mitigation includes avoidance, minimization by limiting the degree of the activity, restoration of the affected environment, reducing or eliminating the impact over time and ongoing maintenance, and compensation by replacing or providing substitute resources or environments. The selection of mitigation techniques should achieve a balance between the intrinsic characteristics of the environmental resources and the cost of implementing mitigation measures. The first tactic should be the avoidance of creating an impact. When avoidance cannot accomplish the goal, then the level of mitigation commensurate to the level of impact should be established.

Avoidance Strategies

The technical design of the transmission system is predicated on constructing a double circuit 345kV transmission line. The span will be determined as a function of economics and potential impact to environmental, physical and cultural resources. Where there are insignificant environmental impacts expected, the most economical span and location of the structures should direct the design. Where significant potential impacts are expected along a specific route or segment the technical design may include taller structures, increased or decreased spans or re-alignment of the route to avoid the impact.

Use of Joint Use and Existing Facilities

The expected environmental impacts along existing infrastructural alignments will generally be less significant than in so-called "pioneer" routes. Existing transmission line and gas pipe line corridors generally include roadways used during their initial construction and are currently maintained for maintenance access and inspections. TEP will to the extent possible, incorporate use of existing access ways.

Ground Truthing and Mitigation / Recovery Prior to Construction

Each alternative corridor analyzed may contain areas where it is not feasible to mitigate impacts through avoidance. As the significance and nature of the resource are determined along with the extent and context, other mitigation strategies may be identified. Until specific resources are assessed, it is problematic that appropriate mitigation measures can be selected for this project.

Discussion of Environmental Resources within the Study Area

The Process

The process proposed by TEP incorporates extensive public participation to identify local issues and values. A baseline inventory of the environmental resources had been prepared in 1996, and has been updated in the spring of 2000 where significant changes have occurred since the initial data gathering and inventories were completed. TEP will host a series of public input sessions to develop alternative corridor preferences and issues relating to these corridors.

The initial alternative corridor selections will be evaluated and realignment recommendations prepared reflecting the composite assessment of the public issues and the baseline environmental research. At this point the scoping meetings as defined by the NEPA compliance process will be scheduled. The primary objective of these meetings is to confirm the issues previously identified and using the preliminary corridor alignments to elicit additional comment, identify additional issues and concerns. From this point on, the DOE, in consultation with the State of Arizona Corporation Commission and other local agencies responsible for approval or permitting, shall determine the appropriate studies necessary to support the level of NEPA review determined to be necessary, and will supervise the preparation of them.

Individual Inventories

Physical Resources

Soils

Mapping of the associations and soil series has been assembled using soils surveys obtained from the Soil Conservation Service, and United States Department of Agriculture.

Geology & Seismic

Mapping of seismic conditions indicating known and inferred fault zones has been derived from geological data obtained from federal and state sources.

Slope

Broad category slope analysis was prepared for the study area. The categories were selected to correlate to developmental impact probabilities. Areas with relatively flat slopes result in less disturbance to the soils and habitats for access and construction operations than steeper slopes. Erosion potential has a direct correlation to slope. The economic evaluations contain factors relating to slope.

Hydrology

Rivers, washes, and drainage ways within the study area were delineated so that constraints on access, disruption or disturbance relating to potential impacts covered by the Corps of Engineers ("COE") and the regulations addressed in the Section 404 Permitting process. To this analysis the base flood plains that have been mapped by COE will need to be delineated. No critical "action flood plain" or "probable maximum flood" analysis is anticipated, unless a specific corridor is selected and major segments fall within the regulatory flood plains.

Biological Resources

Habitat and Threatened and Endangered Species

The study area was mapped using the classification system from "Biotic Communities of the Southwestern United States and Northwest Mexico", David E. Brown, 1994 with the biotic communities delineated using low level aerial photography interpretation. The study of the wildlife integrated data was obtained from the Arizona Game and Fish Department and federal data from the U.S. Fish and Wildlife Service of known sitings and listing of specific threatened and endangered species and ranges based on environmental analysis. No point or geo-referenced data has been acquired. It is anticipated that intensive site specific field studies will be necessary to determine the potential impact within the selected corridor prior to construction.

Cultural

Archaeology

Professional Archaeological Services and Technologies ("PAST") was hired by TEP to record information of known archaeological sites within the study area from the Arizona State Museum ("ASM"). The mapped data was abstracted at the request of the State Historic Preservation Office, with this abstracting of the sensitive data we believe that the potential for willful destruction of this resource is quite low, yet allows the selection of corridor alternatives that will avoid the cultural resources known at this time.

The information extracted from the site cards at ASM was recorded and organized in a spreadsheet format. This data included the location recorded by the field investigator, the site identification number, the type of site, the era (prehistoric, pre-ceramic etc.) the size, orientation, and the status. Of these categories, the status, which indicated whether a site had been studied and any necessary recovery completed; the type of site, which identified whether the site was a singular firepit or village with multiple structures; and era are the most significant to the evaluation and management of the resource. Additional studies and field investigations will be necessary to prepare an assessment and mitigation strategies for the selected corridor.

Historical

The historical inventories and mapping reflects a file search for sites listed in the National Register of Historic Places and the State Historic Preservation Office. There are several areas delineated on the map that contain extensive historic structures or sites and represent significant historic cultural resources. The concentrations are located in the Nogales, AZ area within the original railroad holding area adjacent to the international border and areas extending from this zone.

Land use

Existing land use has been developed using photo interpretation, and city and county land use plans. This data records the extent of the urbanized area, areas under cultivation, and areas undeveloped consisting of indigenous or generally undisturbed vegetation.

Transportation

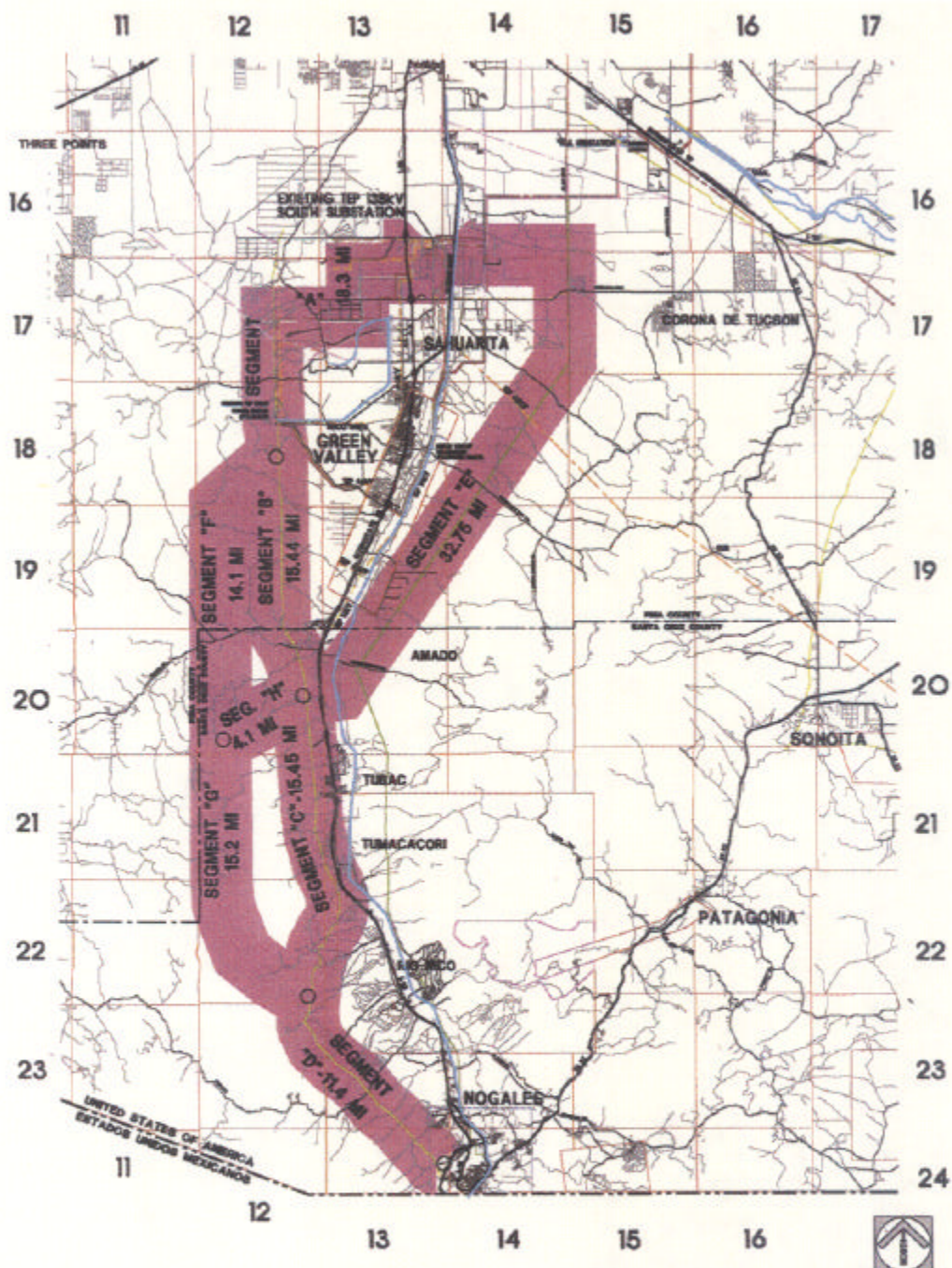
The transportation system was mapped using data collected from state, county and local jurisdictions and verified using current aerial photo interpretation. The categories developed were defined by functional capacity, surfacing and maintenance levels. The highest level included both federal and state highways along with city and county maintained arterial roadways. The mid-level category consisted of collector roadways and roads accepted for maintenance by the local jurisdiction. The lowest level category included private roads, unpaved roads within delineated rights-of-way and unpaved trails.

Existing Utilities

The existing utilities were mapped and a composite prepared indicating the location of the alignment, the type of corridor and the ownership.

General TEP Conclusion

While the assessment of environmental resources presented here is preliminary, it has not uncovered indications within the study area which would preclude potential routes for the Tucson – Nogales Transmission Project. The process, therefore, appears to be free to proceed through the steps that DOE may identify as required prior to approval of TEP's permit application.



ENVIRONMENTAL REPORT
 SANTA CRUZ RIVER VALLEY

**STUDY
 CORRIDORS**
 R11-R16

IDENTITY NO.

C-1

SHEET 1 OF 1